



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/843,915

04/30/2001

Frederik Augustijn

P-8894

9908

27581

7590

06/29/2004

MEDTRONIC, INC.

710 MEDTRONIC PARKWAY NE

MS-LC340

MINNEAPOLIS, MN 55432-5604

EXAMINER

FAROOQ, MOHAMMAD O

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,915

Applicant(s)

AUGUSTIJN ET AL.

Examiner

Mohammad O. Farooq

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-17, 22-34, 36, 38-49, 51 and 53-63 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 18-21, 35, 37, 50, 52 and 64-67 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2182

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3,5, 7-17, 22-34, 36, 38-49,51, and 53-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada, U.S. Pat. No. 5,455,820 in view of Krausman et al. U.S. Pat. No. 6,306,088 B1.

2. As to claim 1, Yamada teaches method comprising:
collecting first data stream data into a first intermediate register (one of buffers 1001...100N, fig. 1);
collecting additional data stream data into at least one additional intermediate register (another of buffers 1001...100N); and
storing first intermediate register contents in a first output register (one of items 3001...300N).

Art Unit: 2182

Yamada does not teach medical device. Krausman et al. teach medical device (abstract). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Yamada and Krausman et al. because that would provide plurality of selected measurements sites of a subject/patient (col. 2, lines 33-46).

3. As to claim 2, Yamada teaches method comprising storing additional intermediate register (input buffer) contents in the first output register (i.e. output buffer; via buffer controller/buffer selector; col. 3, lines 34-63).

4. As to claims 3 and 5, Yamada teaches method comprising storing first intermediate register (input buffer) contents in at least one additional output register (output buffer) and storing additional intermediate register contents in at least one additional output register (via buffer controller/buffer selector; col. 3, lines 34-63).

5. As to claims 7 and 8, Yamada teaches method comprising storing first intermediate register contents with an identification code (i.e. address information) that uniquely identifies the first data stream data and storing additional intermediate register contents with an identification code (i.e. address information) that uniquely identifies the additional data stream data (col. 4, lines 19-38).

Art Unit: 2182

6. As to claims 9 and 10, Yamada teaches first output register and additional output register (input and output buffer; see fig. 1).

Yamada does not teach transferring contents to memory. Krausman et al. teach transferring contents to memory (i.e. common memory; col. 6, lines 27-36). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Yamada and Krausman et al. because that would provide display of temporal variations in the data for diagnosing the medical condition of the subject (col. 2, lines 33-58).

7. As to claims 11 and 12, Yamada does not teach compressed first data stream data and compressed additional data stream data.

Krausman et al. teach compressed first data stream data and compressed additional data stream data (since using various types of recorder units; col. 5, lines 4-13). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Yamada and Krausman et al. because that would eliminate signal distortion for automated systems(col. 2, lines 1-4).

8. As to claims 13 and 14, Yamada teaches method comprising collecting first data stream data until the first intermediate register is full and collecting additional data stream data until the additional intermediate register is full (via buffer controller/selector and since the system prevents overflow; col. 3, lines 34-52; col. 4, lines 20-48).

Art Unit: 2182

9. As to claims 15 and 16, Yamada teaches method comprising storing remaining first intermediate register contents in the first intermediate register if the first output register is full and storing remaining additional intermediate register contents in the additional intermediate register if the first output register is full (inherent since the system prevents overflow; col. 4, lines 20-48).

10. As to claim 17, Yamada teaches method comprising determining a state of the first output register (via buffer occupancy state signal line; col. 4, lines 39-49).

11. As to claim 22, Yamada teaches device comprising:

a controller (buffer controller; col. 3, lines 53-63);

a first intermediate register for collecting first data stream data (one of buffers 1001... 100N, fig. 1);

at least one additional intermediate register for collecting additional data stream data (another one of buffers 1001... 100N, fig. 1);

at least one output register for receiving first intermediate register contents (one of buffers 3001... 100N, fig. 1).

Art Unit: 2182

Yamada does not teach medical device, a processor, one sensor and a memory transfer unit. Krausman et al. teach medical device (abstract), a processor (col. 6, line 30), one sensor (col. 6, lines 27-36) and a memory transfer unit (for common memory; col. 6, lines 27-36). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Yamada and Krausman et al. because that would provide plurality of selected measurements sites of a subject/patient (col. 2, lines 33-46).

12. As to claims 26 and 31, Yamada does not teach a memory operably connected to the processor and a converter operably connected to the processor. Krausman et al. teach a memory operably connected to the processor (col. 6, lines 27-36) and a converter operably connected to the processor (col. 6, lines 27-56).

However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Yamada and Krausman et al. because that would provide display of temporal variations in the data for diagnosing the medical condition of the subject (col. 2, lines 33-58).

13. As to claims 29 and 30, Yamada teaches device wherein the first intermediate register (one of input buffers, fig. 1) is adapted to store first data stream data and the additional intermediate register (another of input buffers, fig. 1) is adapted to store additional data stream data.

14. As to claim 32, Yamada teaches system for transferring at least two data streams in a device comprising:

means for collecting first data stream data into a first intermediate register (one of buffers 1001...100N, fig. 1);

means for collecting additional data stream data into at least one additional intermediate register (another of buffers 1001...100N); and

means for storing first intermediate register contents in a first output register (one of items 3001...300N).

Yamada does not teach medical device. Krausman et al. teach medical device (abstract). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Yamada and Krausman et al. because that would provide plurality of selected measurements sites of a subject/patient (col. 2, lines 33-46).

15. As to claims 42 and 43, Yamada teaches means for collecting first data stream data until the first intermediate register is full and means for collecting additional data stream data until the additional intermediate register is full (via buffer occupancy state signal for preventing overflow; col. 4, lines 20-49).

Art Unit: 2182

16. As to claim 47, Yamada teaches computer usable medium including a program for transferring data in a device, comprising:

computer program code that collects first data stream data into a first intermediate register (one of buffers 1001...100N, fig. 1);

computer program code that collects additional data stream data into at least one additional intermediate register (another of buffers 1001...100N); and

computer program code that stores first intermediate register contents in a first output register (one of items 3001...300N).

Yamada does not teach implantable(i.e. medical)device. Krausman et al. teach implantable (i.e. medical) device (abstract). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Yamada and Krausman et al. because that would provide plurality of selected measurements sites of a subject/patient (col. 2, lines 33-46).

17. Claims 23-25, 27 and 28 are apparatus claims of method claims 2, 3, 5, 7 and 8. Yamada and Krausman et al. in combination teach method as set forth in claims 2,3 5, 7 and 8. Therefore, Yamada and Krausman et al. in combination also teach apparatus as set forth in claims 23-25, 27 and 28.

Art Unit: 2182

18. Claims 33,34,36, 38-41 and 44-46 are apparatus claims of method claims 2, 3, 5, 7-10 and 15-17. Yamada and Krausman et al. in combination teach method as set forth in claims 2,3 5, 7-10 and 15-17. Therefore, Yamada and Krausman et al. in combination also teach apparatus as set forth in claims 33,34,36,38-41 and 44-46.

19. Claims 48,49,51,and 53-63 are computer program claims of method claims 2, 3, 5, and 7-17. Yamada and Krausman et al. in combination teach method as set forth in claims 2,3 5, and 7-17. Therefore, Yamada and Krausman et al. in combination also teach computer program as set forth in claims 48,49,51, and 53-63.

Allowable Subject Matter

20. Claim 4,6,18-21, 35,37,50,52 and 64-67 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments


21. Applicant's arguments with respect to claims 1-67 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2182

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad O. Farooq whose telephone number is (703) 305-3888. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Mohammad O. Farooq
June 22, 2004